

BEST AVAILABLE COPY**Docket No. 31896-70200 (AHP 98133 P1)
Patent****REMARKS**

Claims 50 and 52-68 are pending. By this amendment, claims 45-46 have been canceled without prejudice or disclaimer. Applicants reserve the right to pursue these canceled claims in a continuation application.

Applicants respectfully submit that the instant amendment does not introduce new matter. Accordingly, Applicants respectfully request the Examiner to enter the amendment.

Applicants also thank the Examination for the withdrawal of the §§102(b) and 103(a) rejections in the previous Office Action.

Rejection Under 35 U.S.C. §112 (Nonenablement)

On pages 2-5, the Office Action rejects claims 45-46 under 35 U.S.C. §112, first paragraph, as allegedly not being enabled for reciting the phrase "biologically active fragment." As indicated above, Applicants have canceled claims 45-46 without prejudice or disclaimer, thereby rendering this rejection moot. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of these claims.

Rejection Under 35 U.S.C. §112 (Lack of Written Description)

On pages 6-7, the Office Action further rejects claims 45-46 under 35 U.S.C. §112, first paragraph, as allegedly failing to satisfy the written description requirement for the recitation of the phrase "biologically active fragment." As noted above, Applicants have canceled claims 45-46, thereby rendering the rejection moot. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of these claims.

Rejection Under 35 U.S.C. § 102(e)

On page 8, the Office Action rejects claims 45-46, 50, and 52-68 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,856,155 (hereinafter "Li") Applicants respectfully traverse the rejection.

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As noted above, Applicants have canceled claims 45-46, rendering the rejection of these claims moot. Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of these claims.

In regard to claims 50 and 52-68, Applicants respectfully submit that Li fails to teach or suggest the present invention as claimed. Li describes the use of yeast two-hybrid systems to identify agents that can modulate interactions between the NAB and NAB-S1 linking region of an α -subunit of a Shaker-like potassium ion channel and the core region of a β -subunit of a Shaker-like potassium ion channel. See columns 17-18 of Li. See also page 3, lines 1-7, of the present application. Li shows that the NAB and NAB-S1 linking region of an α -subunit are located N-terminal to the S1-S6 domains. See Figure 10A of Li. Li also illustrates that the core region of a β -subunit includes the most part of the β -subunit except its N-terminal region. See Figure 4 of Li.

In contrast, however, the method recited in claim 50 of the present application utilizes a hybrid protein comprising "an S4-S5 cytoplasmic loop of an α -subunit." Li neither teaches nor suggests the use of a fusion protein that comprises the S4-S5 cytoplasmic loop of an α -subunit. Accordingly, Applicants respectfully submit that Li fails to teach or suggest each and every element of claim 50.

Likewise, the method recited in claim 52 employs a protein comprising "an S4-S5 cytoplasmic loop of a voltage-gated ion channel," which Li does not teach or suggest. Similarly, the methods recited claims 67 and 68 use proteins comprising "an S4-S5 cytoplasmic loop of a potassium channel α -subunit," which Li also fails to teach or suggest.

Based on all of the above reasons, Applicants respectfully submit that Li neither anticipates nor renders obvious claims 50, 52, 67, and 68 of the present application. Reconsideration and withdrawal of the 102(e) rejection of these claims are, therefore, respectfully requested.

Because claims 53-66 depend from claim 52, Applicants respectfully submit that Li also fails to teach or suggest each and every element of these claims. Reconsideration and withdrawal of the 102(e) rejection of these claims are, therefore, respectfully requested.

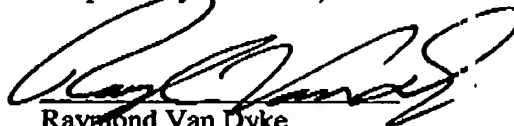
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CONCLUSION

For at least the reasons set forth above, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance of the claims are earnestly solicited. Although Applicants believe that no fee is due, the Commissioner is hereby authorized to charge any payment deficiency to deposit account number 19-2380 referring to attorney docket number 031896-070200.

Should the Examiner believe that anything further is desired in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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